

## **Abstract**

*Currently the development of information technology is increasing rapidly. Need large storage to save image data informations. Large of data is causing difficulty to finding information in form of image data that expected by the user. In order that the informations of image data collections can be used with effective and efficient, so it's needed an data retrieval . System requirements is Content Based Image Retrieval.*

*However image retrieval based on Content Based Image Retrieval has a weakness that is less able identifications two images are really identical, sensitive to changes in transformation, or in comparing a particular part or object from an image to another image for a different picture because each of image have multiple feature. So required a local feature extraction based on the characteristics robust to change transformation and can identify more specific objects. Between many methods for image feature based on local extraction feature, SURF algorithm shows the best performance level compared to the others.*

*In this final project will develop system based Content Based Image Retrieval which implements methods of SURF. This method is expected to provide a high level of similarity between the query image with the test image retrieving relevant and able to provide image retrieval performance with excellent.*

**Keywords:** *Content Based Image Retrieval, SURF, Image Retrieval, Multiple Feature, Local Feature.*